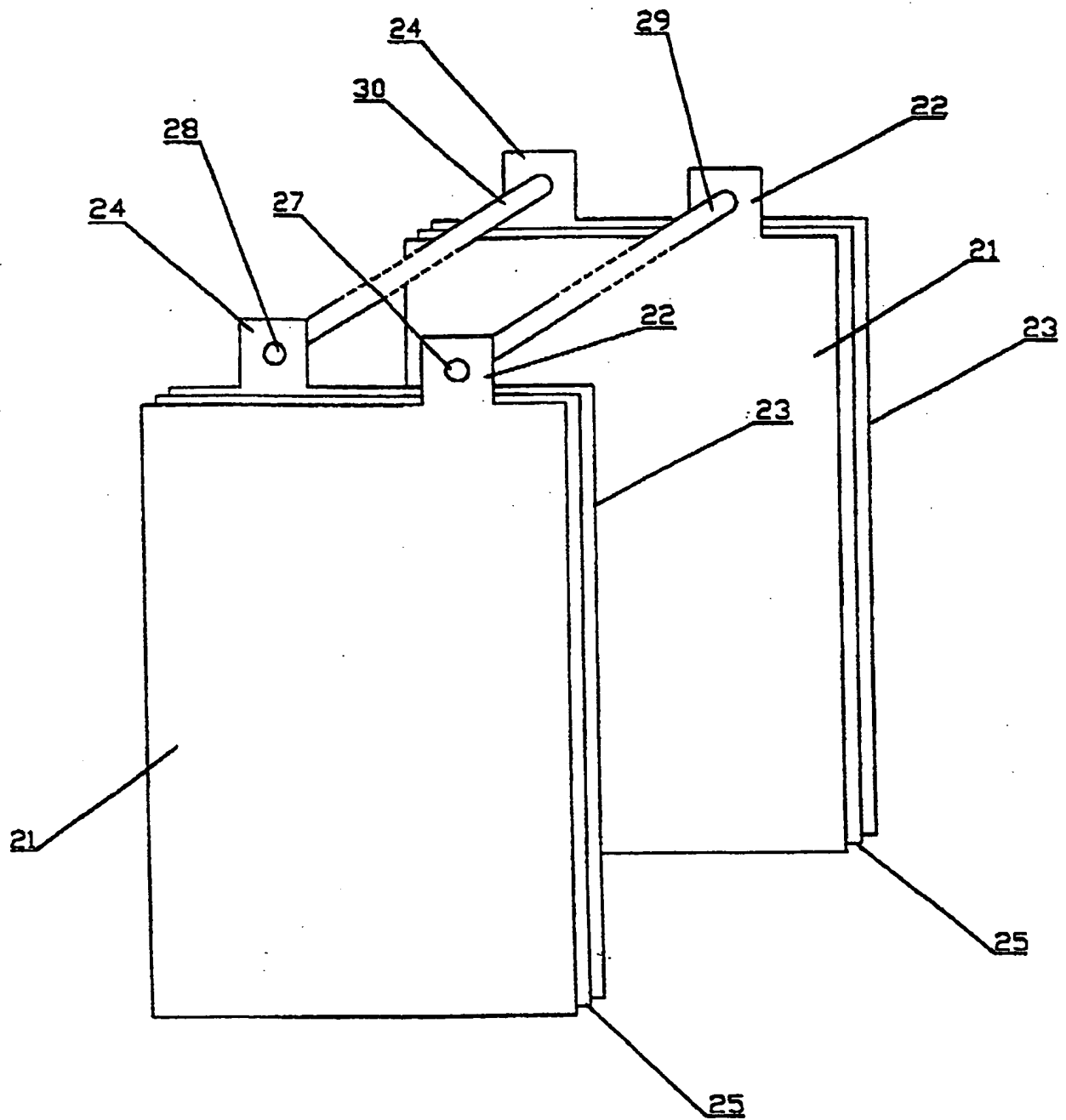
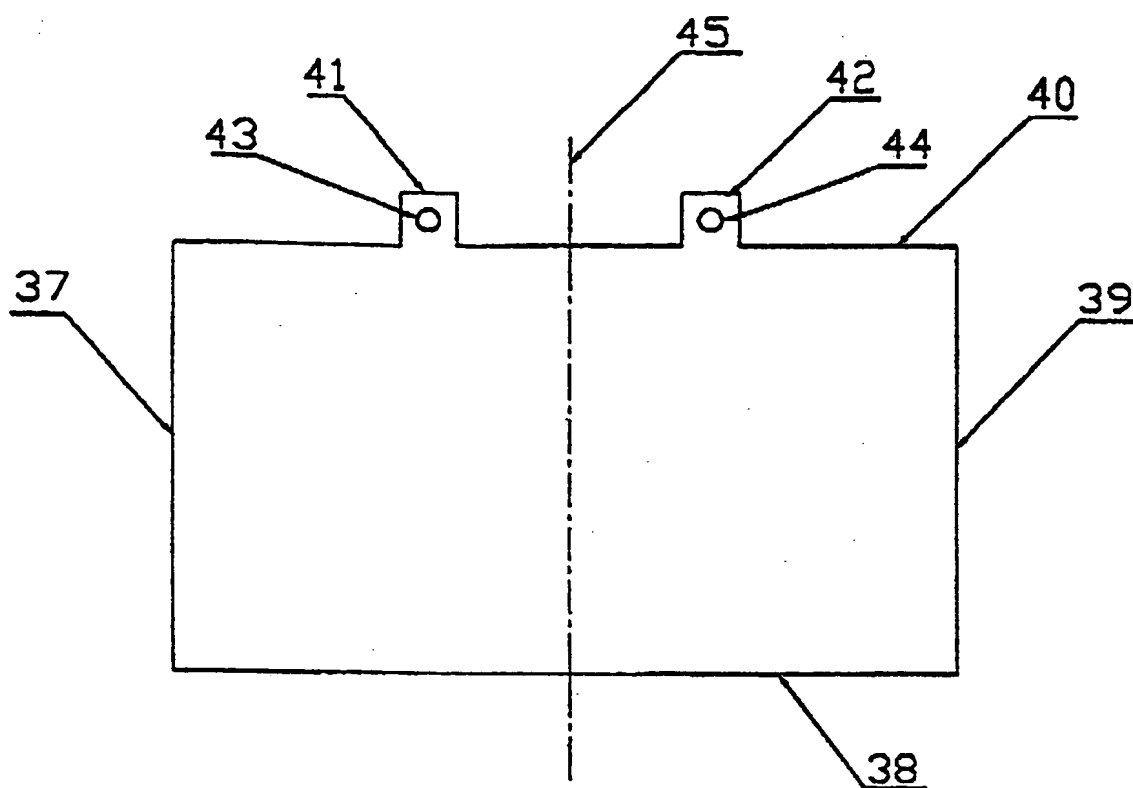


**Figure 1**

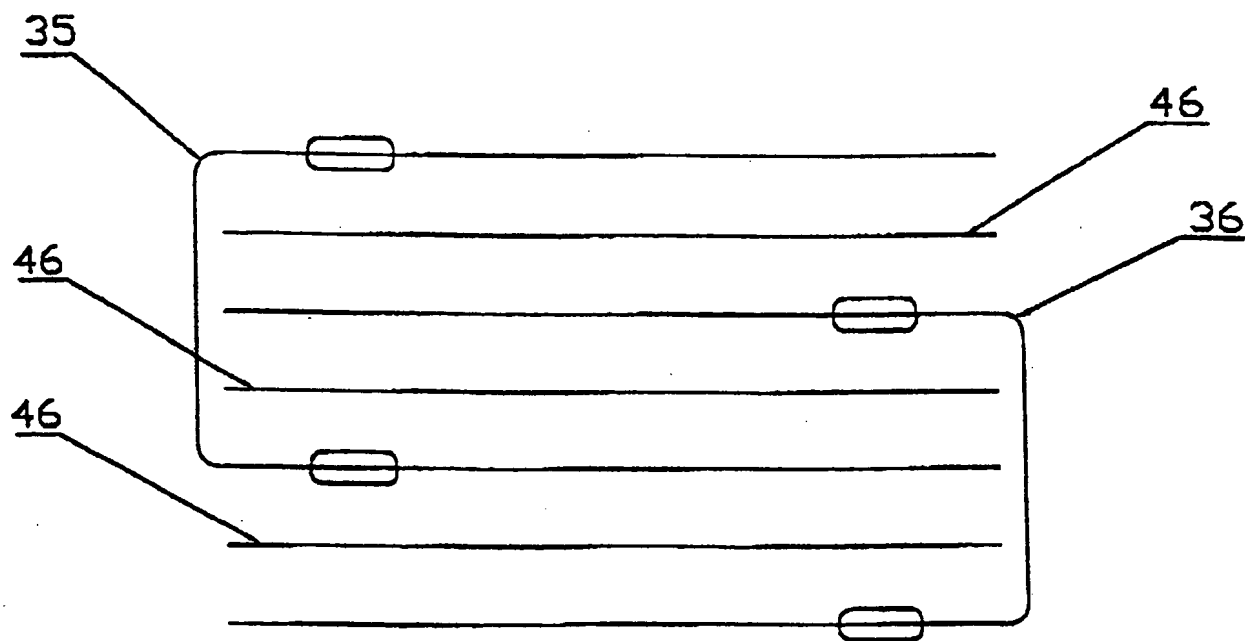
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**Figure 2**

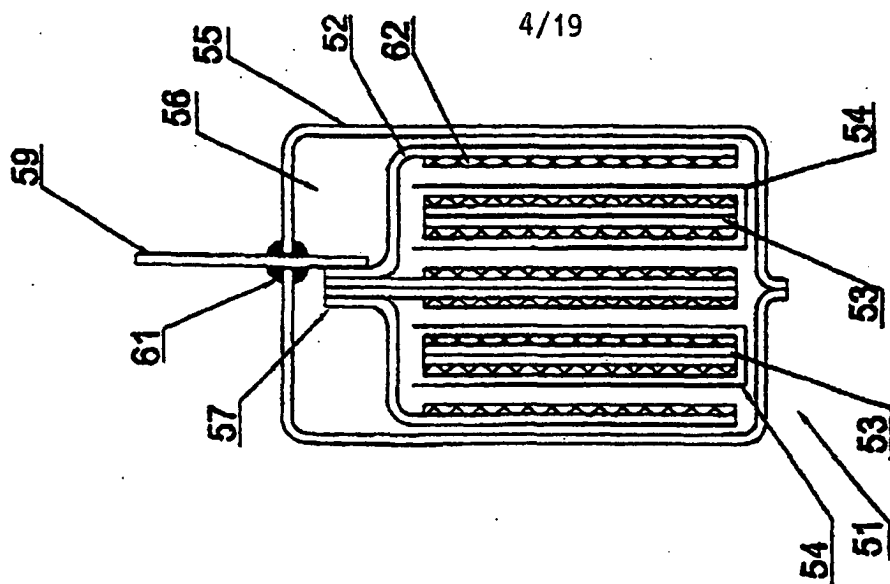
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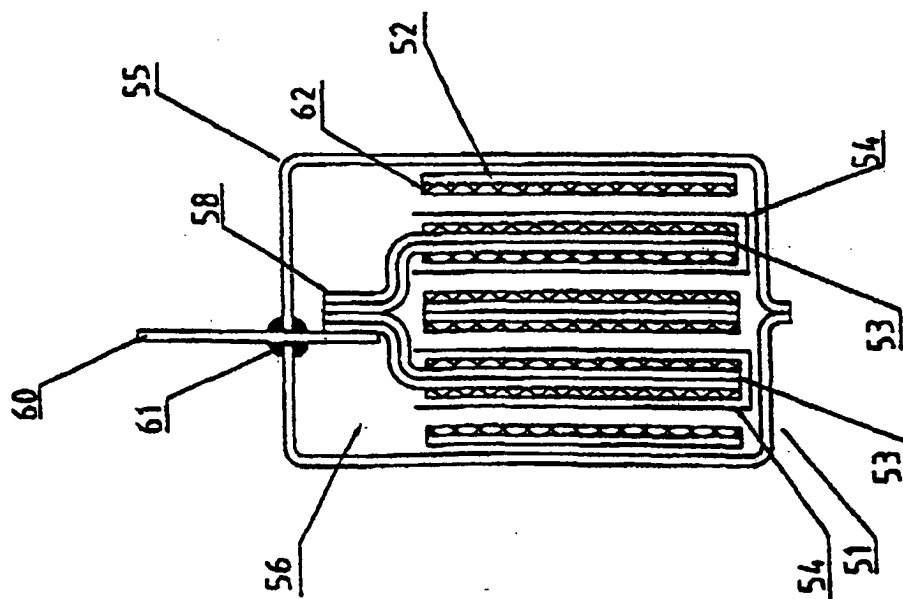
**Figure 3**



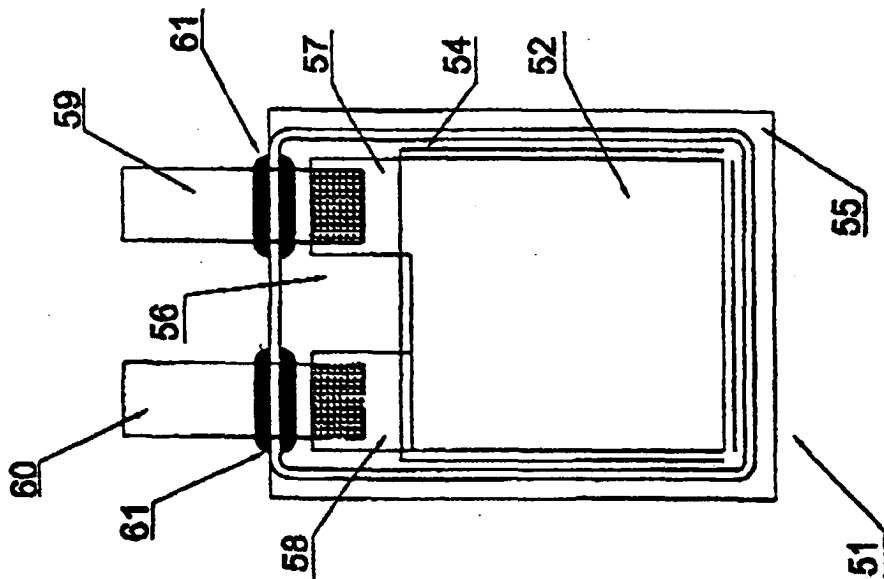
**Figure 4**



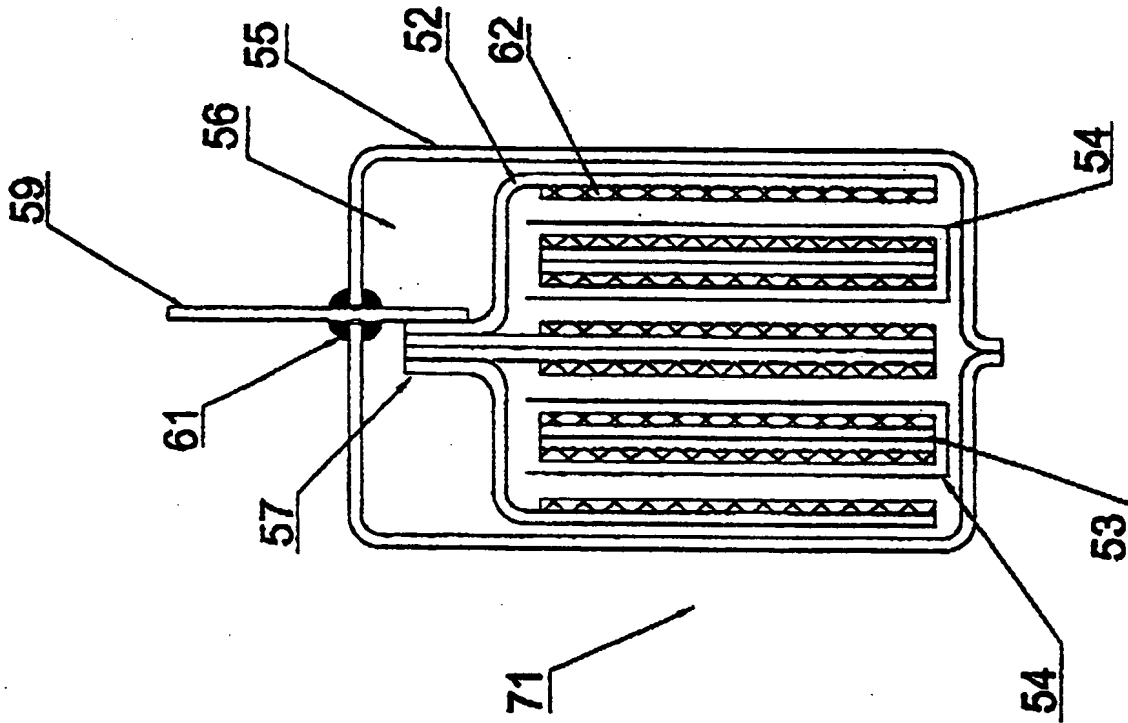
**FIG. 5**



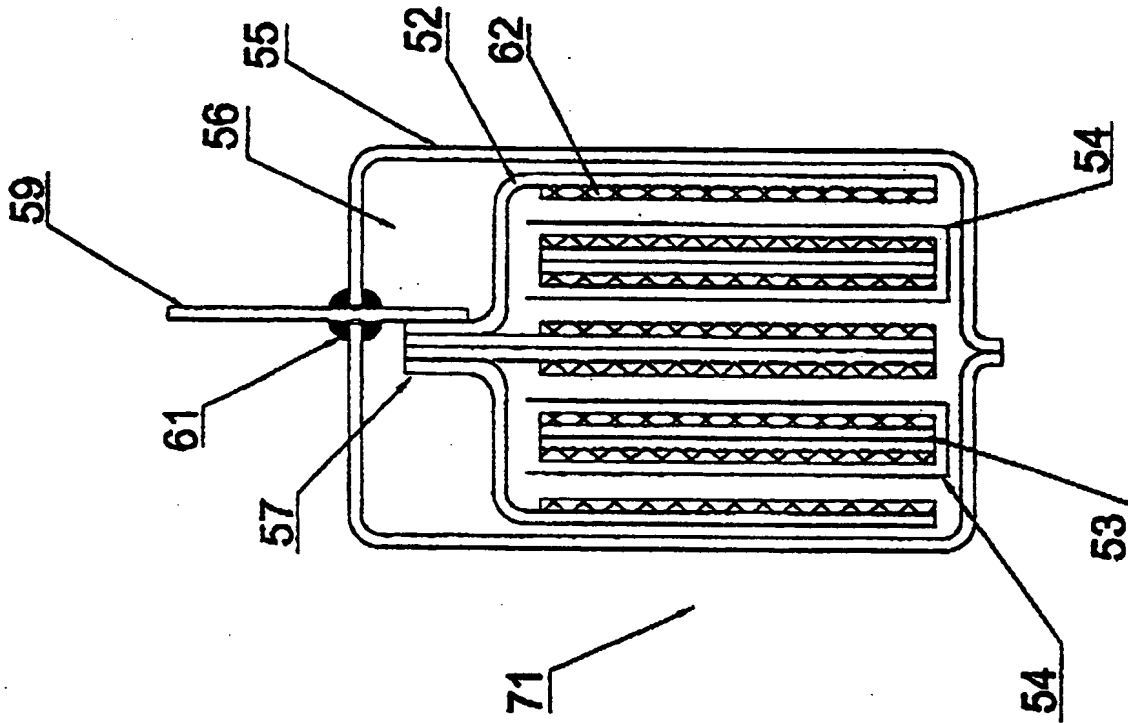
**FIG. 6**



**FIG. 7**

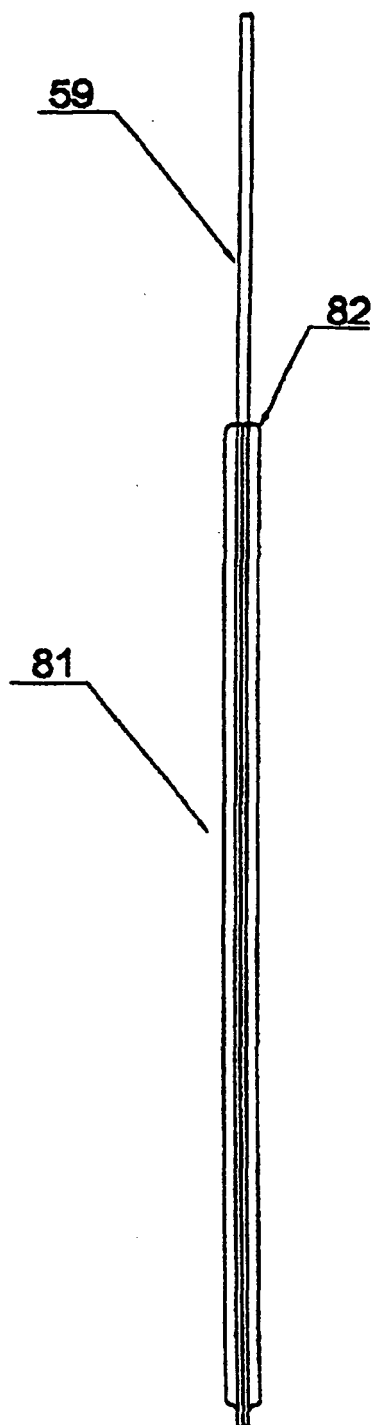


**FIG. 8**

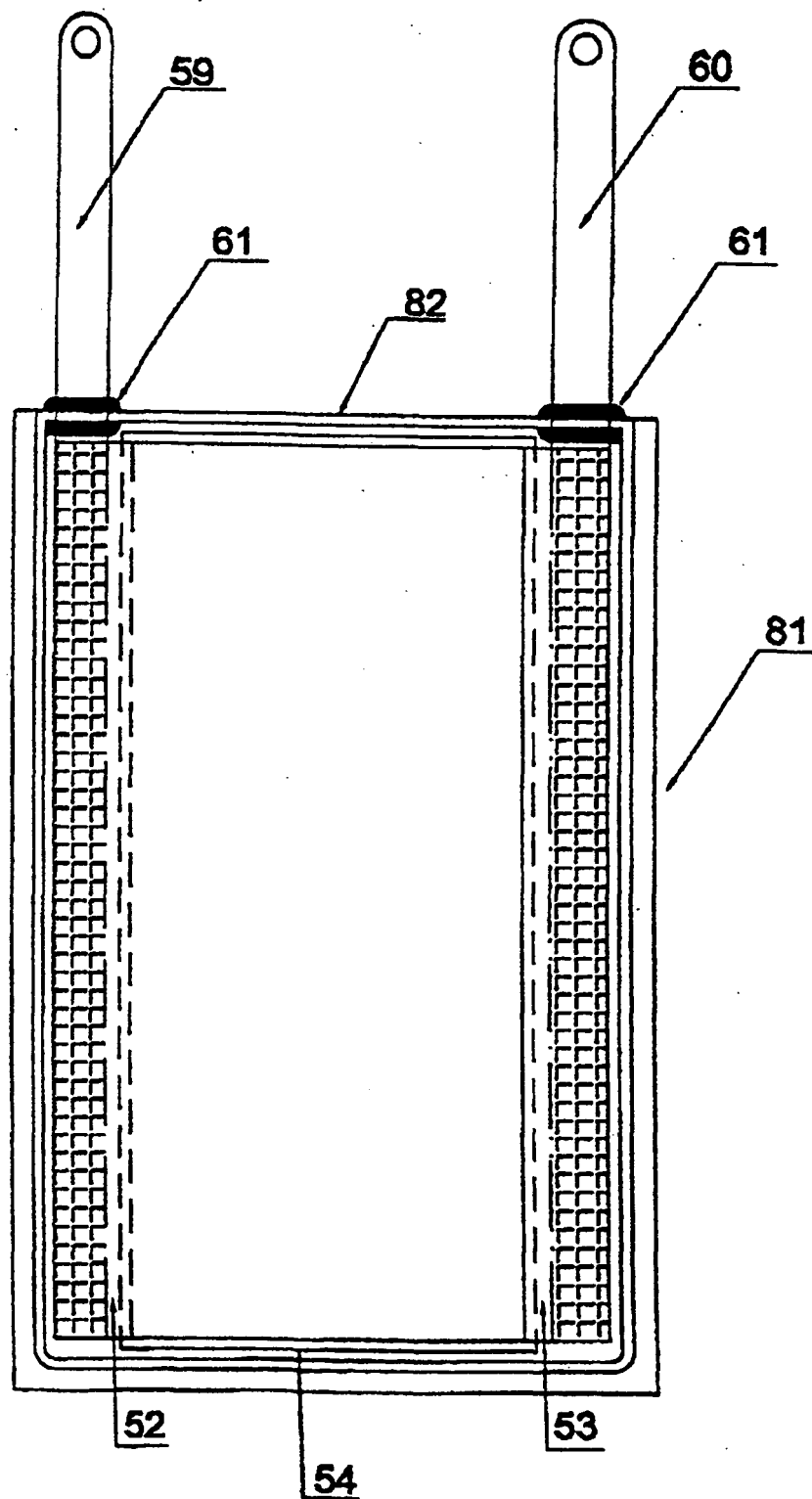


**FIG. 9**

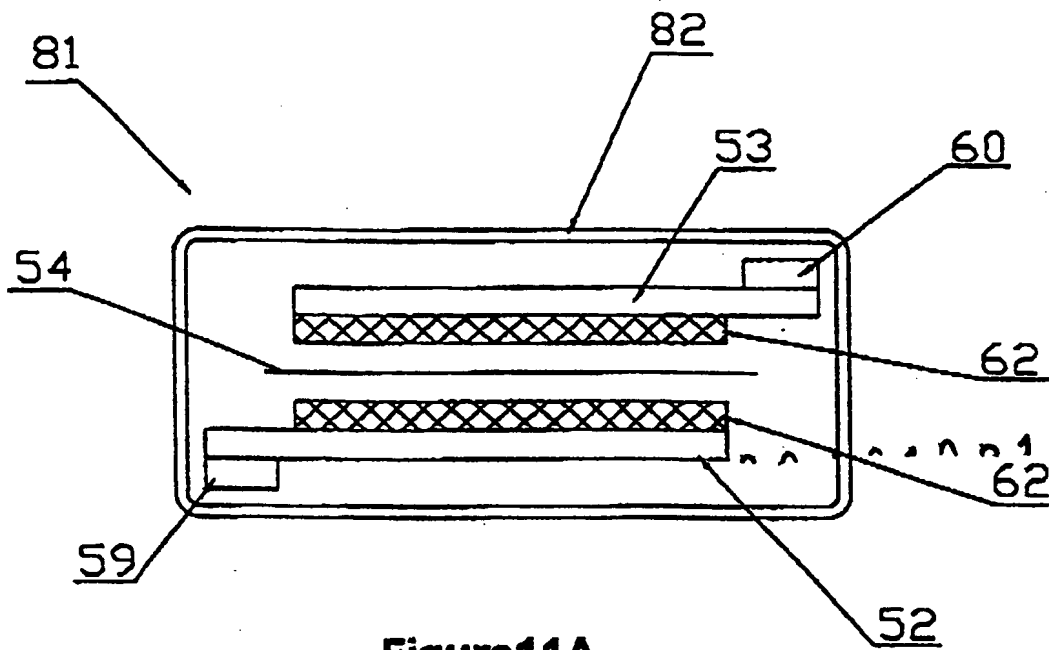
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**FIG. 11**



**FIG. 10**



**Figure 11A**

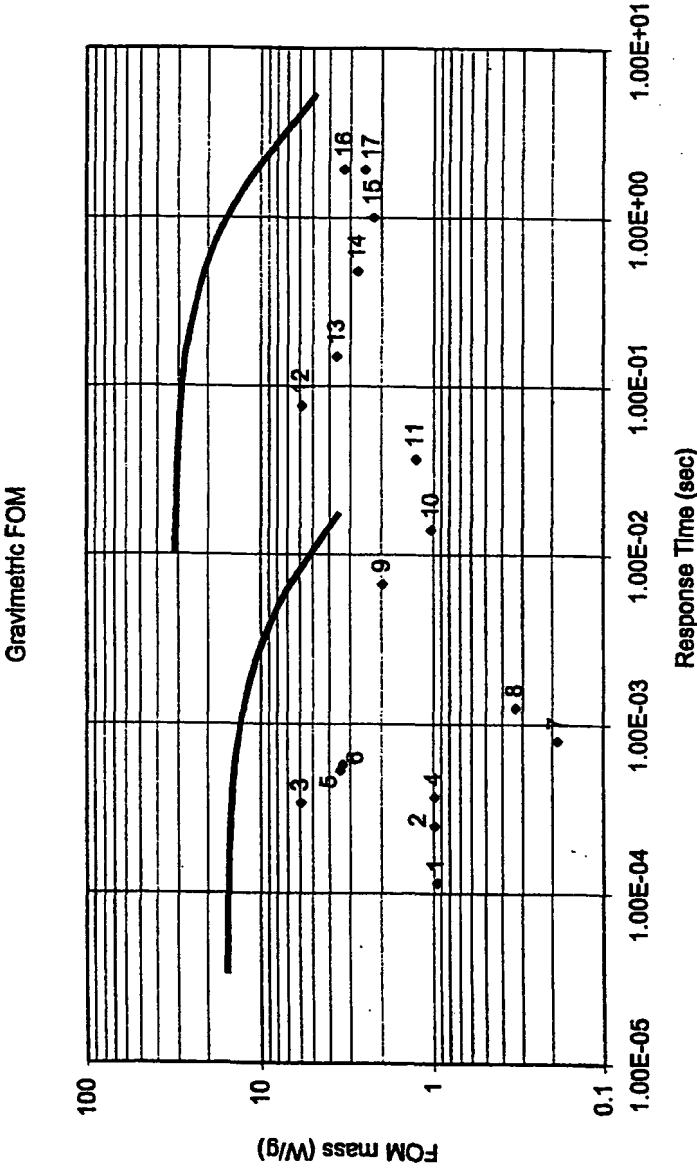


Figure 12



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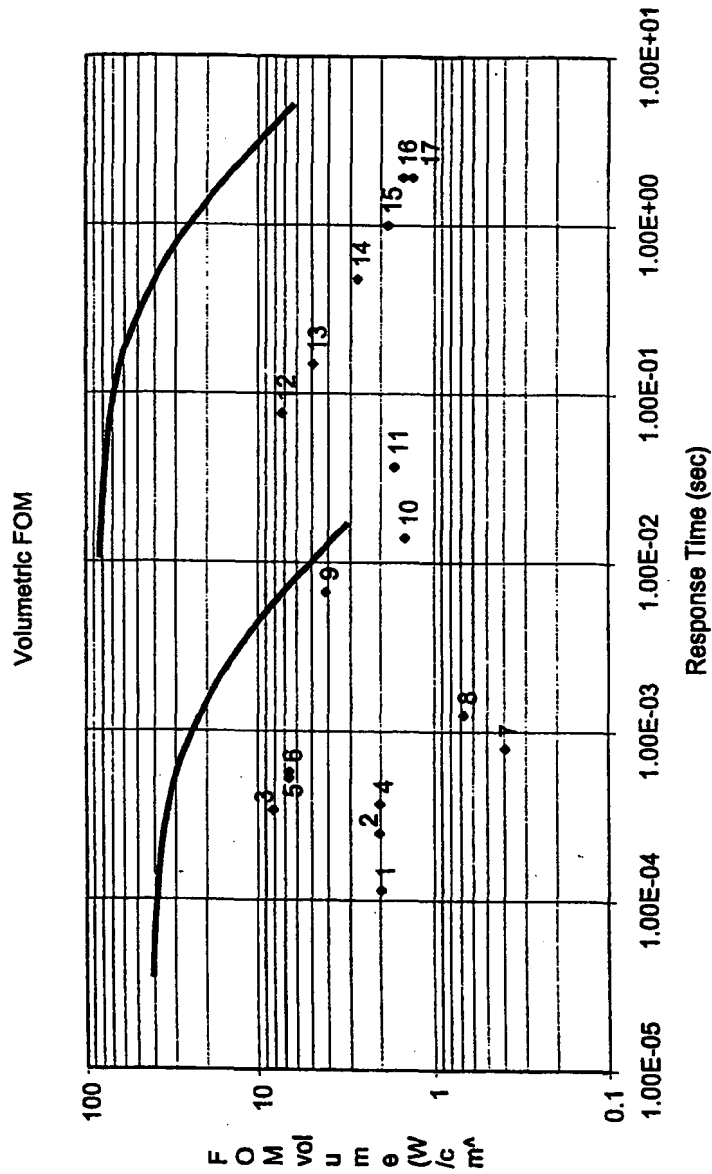


Figure 13

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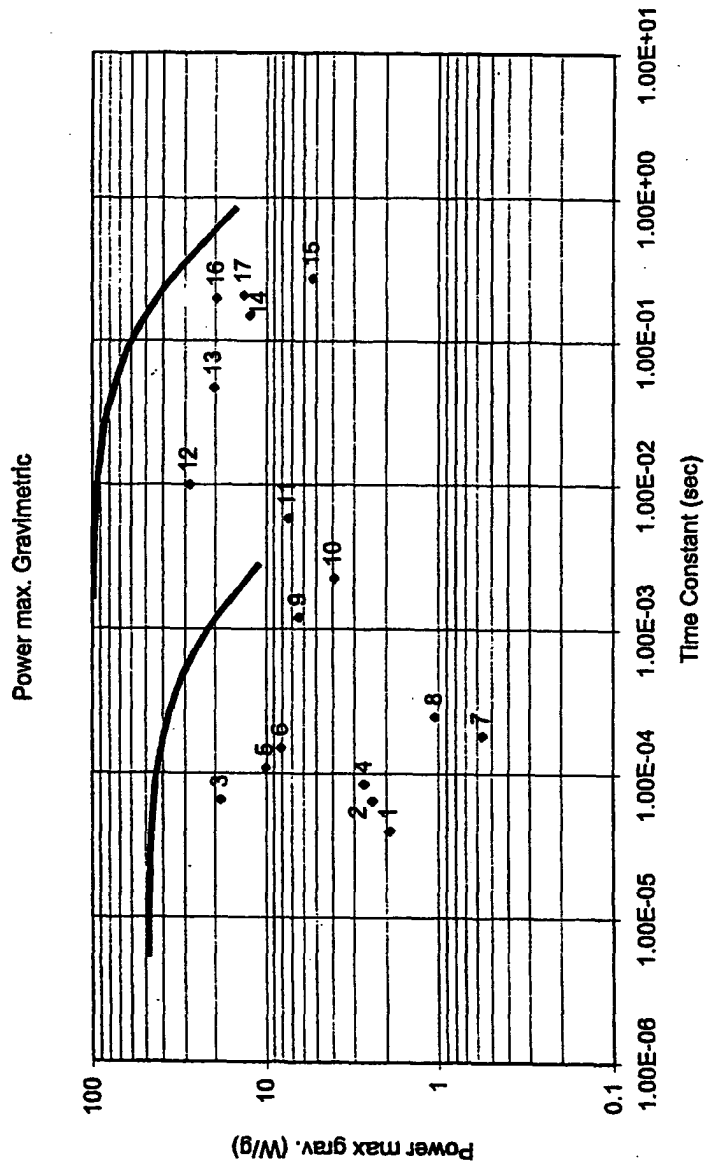


Figure 14

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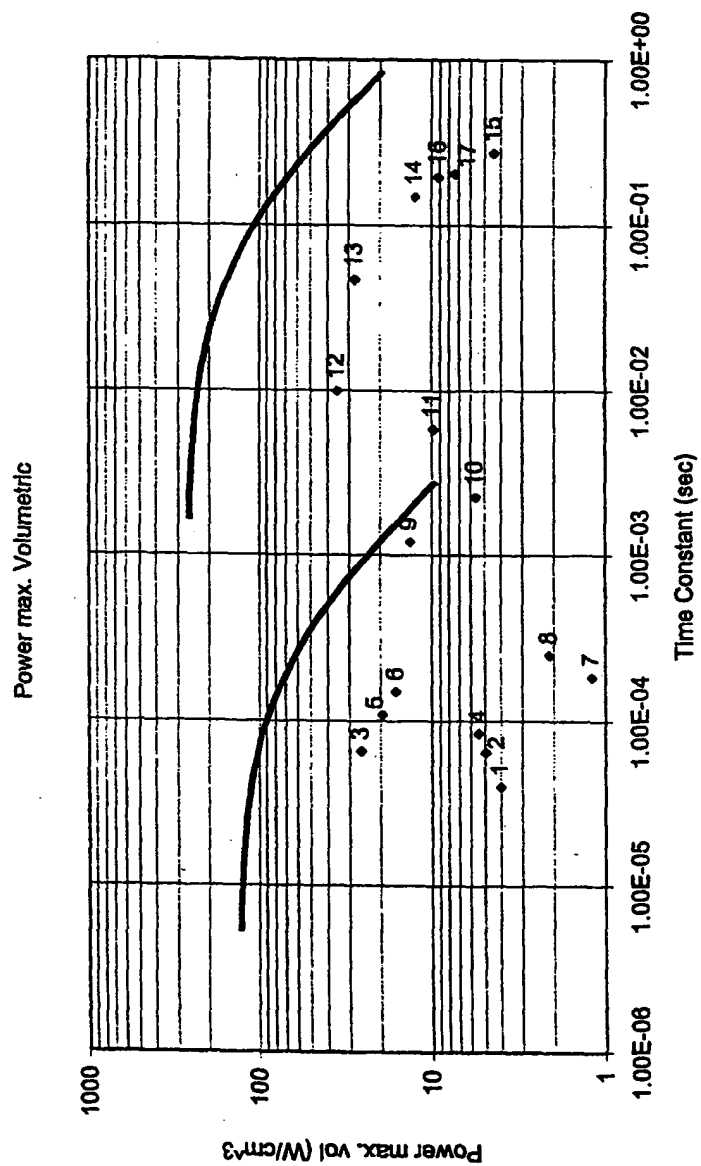


Figure 15

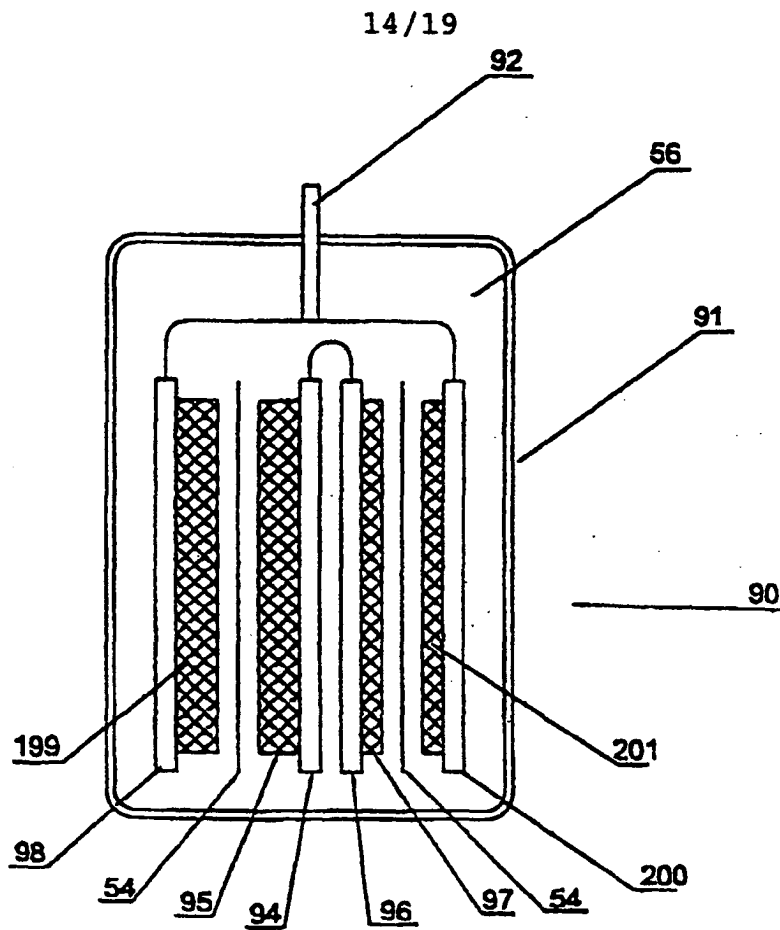
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thickness	time const	power (W/g)	power (W/cc)	resp time	FOMgrav	FOMvol
HF-3						
1	0.00000544	48.64	128.52	0.0000	15.48	40.91
2	0.00001088	48.32	125.46	0.0001	15.38	39.94
5	0.0000272	47.38	117.1	0.0002	15.08	37.27
10	0.0000544	45.89	105.39	0.0003	14.61	33.55
20	0.0001088	43.17	87.83	0.0007	13.74	27.96
50	0.000272	36.46	58.55	0.0017	11.61	18.84
100	0.000544	29.3	37.84	0.0034	9.33	11.98
200	0.001088	20.9	21.96	0.0068	6.65	6.99
500	0.00272	11.24	9.76	0.0171	3.58	3.11
cap-XXHlPo						
1	0.001653	98.31	261.02	0.0104	31.29	83.09
2	0.003306	97.26	254.81	0.0208	30.96	81.11
5	0.008265	94.24	237.82	0.0519	30.00	75.70
10	0.01653	89.62	214.04	0.1039	28.53	68.13
20	0.03306	81.6	178.77	0.2077	25.97	58.90
50	0.08265	64.34	118.91	0.5193	20.48	37.85
100	0.1653	47.56	76.44	1.0386	15.14	24.33
200	0.3306	31.26	44.59	2.0772	9.95	14.19
500	0.8265	15.42	19.82	5.1931	4.91	6.31

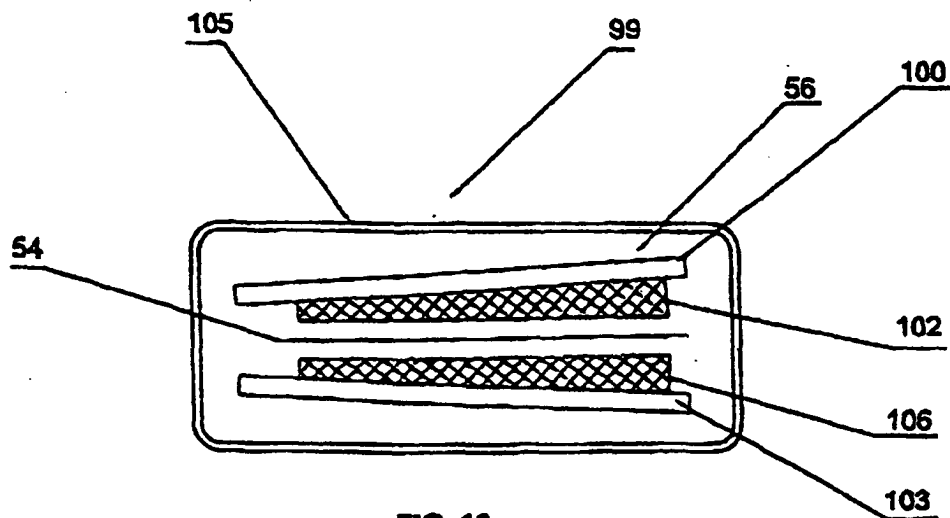
Figure 16

	Capacitance F	Resistance milliohms	Voltage V	Mass g	Volume cc	Size mm x mm x mm	Response Time sec	FOM mass kW/kg	FOM Vol W/cc	Time constant sec	Pgrav max kW/kg	Pvol max W/cc	Thickness mm
Prior Art 1			2.5	4.4	3.01	11.2 x 30.5	6.30E-01	2.06	3.02				
Prior Art 2			2.3	34.0	30.55	33.6 x 17.1 x 53	6.30E+00	0.98	1.10				
Prior Art 3			15.0	4800.0	1440.00	17 x 17 x 5	9.70E-02	0.96	3.20				
1 HF-7	0.00036	110.43	2.5	7.3	3.52	110 x 100 x 0.32	1.15E-04	0.98	2.00	3.98E-05	1.93	4.02	12
2 HF-9	0.00074	86.98	2.5	7.5	3.83	110 x 100 x 0.32	2.50E-04	0.99	2.04	6.44E-05	2.39	4.95	24
3 HF-3	0.00450	14.50	2.5	5.8	4.18	110 x 100 x 0.38	3.40E-04	5.91	8.20	6.53E-05	18.57	25.78	12
4 HF-11	0.00112	75.03	2.5	7.9	3.85	110 x 100 x 0.32	3.70E-04	0.99	2.03	8.40E-05	2.84	5.41	36
5 HF-5	0.00478	22.88	2.5	6.8	3.52	110 x 100 x 0.32	5.28E-04	3.44	6.66	1.08E-04	10.10	19.57	12
6 HF-13	0.00548	27.25	2.5	7.0	3.52	110 x 100 x 0.32	5.71E-04	3.33	6.66	1.49E-04	8.14	16.29	12
7 HF-16	0.00051	358.50	2.5	7.7	3.83	110 x 100 x 0.32	8.00E-04	0.19	0.40	1.83E-04	0.67	1.20	12
8 HF-17	0.00130	190.80	2.5	7.8	3.85	110 x 100 x 0.32	1.25E-03	0.34	0.68	2.48E-04	1.05	2.13	36
9 HF-18	0.03520	34.10	2.5	7.2	3.41	110 x 100 x 0.32	6.67E-03	1.97	4.13	1.20E-03	6.40	13.44	12
10 HF-2	0.03200	70.00	2.5	5.7	3.96	110 x 100 x 0.38	1.40E-02	1.03	1.48	2.24E-03	3.93	5.64	12
11 cap-XX	0.33000	17.80	2.5	12.0	9.01	85 x 53 x 2	3.70E-02	1.27	1.69	5.81E-03	7.40	9.85	12
12 cap-XXHIPO	0.54800	18.10	5.0	12.2	9.80	40 x 35 x 7	7.63E-02	5.83	7.26	9.92E-03	28.30	35.24	6
13 cap-XX,10	10.40000	4.50	2.5	17.0	12.50	50 x 50 x 5	1.50E-01	3.60	4.90	4.88E-02	20.42	27.78	12
14 cap-XX,30	29.70000	6.00	2.5	25.0	25.00	50 x 50 x 10	4.80E-01	2.71	2.71	1.49E-01	12.50	12.50	36
15 cap-XX,250	272.50000	1.00	2.5	295.0	355.30	190 x 110 x 18	1.00E+00	2.20	1.83	2.73E-01	5.30	4.40	36
16 DC-3	17.34000	11.30	2.5	7.0	15.13	91 x 95 x 1.75	1.92E+00	3.28	1.51	1.96E-01	19.73	9.14 60/100	
17 Wed	14.68000	14.00	2.5	8.2	15.13	91 x 95 x 1.75	1.92E+00	2.45	1.33	2.06E-01	13.61	7.38 30/70	

FIGURE 17



**FIG. 18**

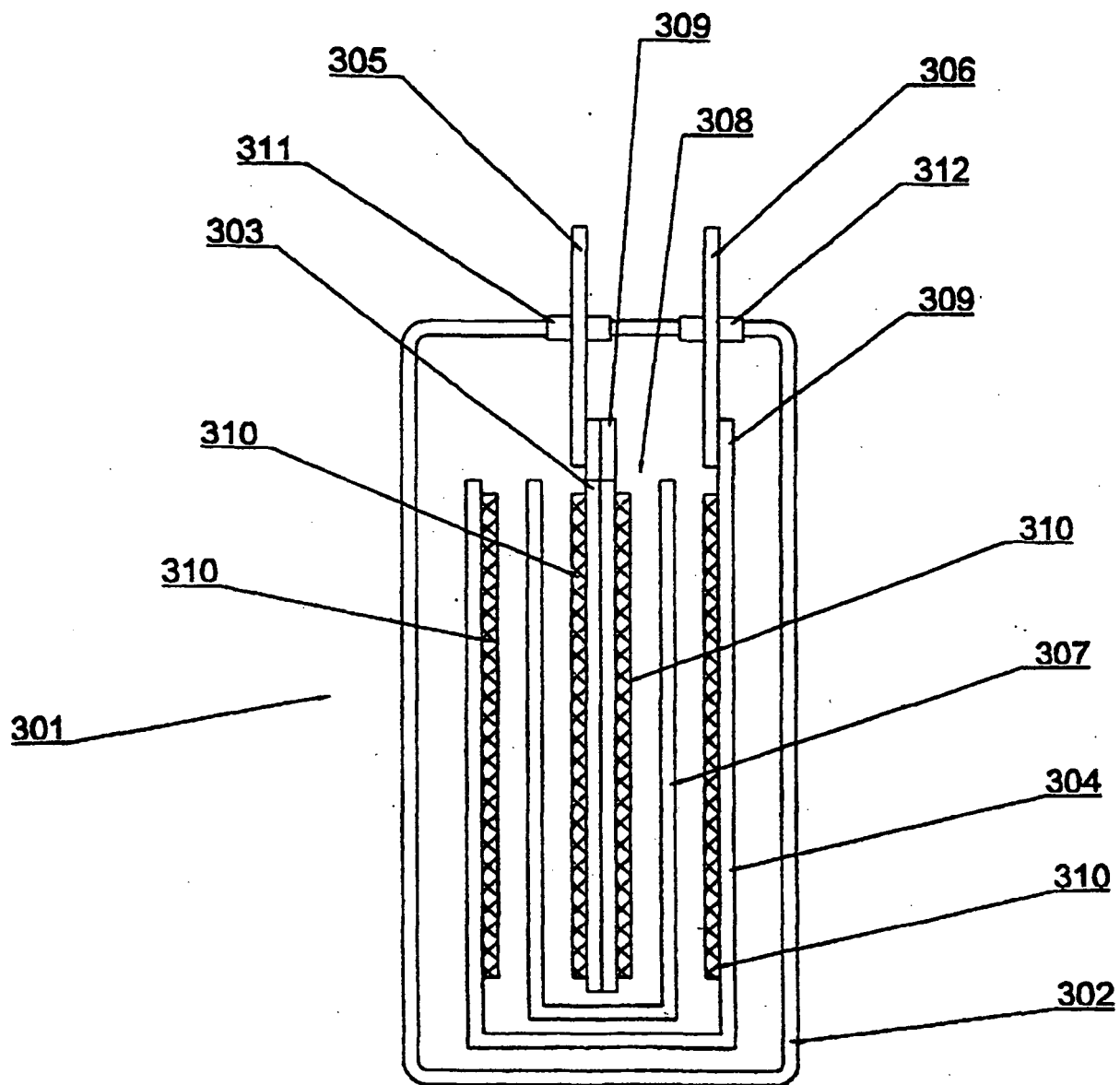


**FIG. 19**

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HF-1	Capacitance F	Resistance ohm	Voltage V	Mass g	Volume cc	Size mm x mm x mm	Response Time sec	FOM mass kW/kg	FOM Vol W/cc	Time constant sec	Pgrav max kW/kg	Pvol max Thickness	
												W/cc	µm
HF-1	0.03500	87.00	2.5	6.6	3.98	110 x 100 x 0.38	1.94E-02	0.80	1.14	3.05E-03	3.19	4.64	12
HF-4	0.00800	14.40	2.5	6.4	4.18	110 x 100 x 0.38	5.28E-04	4.97	7.63	1.15E-04	16.90	25.98	12
HF-8	0.00037	112.24	2.5	7.1	3.52	110 x 100 x 0.32	1.35E-04	0.67	1.35	4.15E-05	1.96	3.95	12
HF-10	0.00077	85.78	2.5	7.7	3.83	110 x 100 x 0.32	2.50E-04	0.68	1.44	8.80E-05	2.38	5.02	24
HF-12	0.00118	75.52	2.5	7.8	3.85	110 x 100 x 0.32	3.85E-04	0.71	1.44	8.91E-05	2.65	5.37	36
HF-6	0.00479	22.68	2.5	7.7	3.52	110 x 100 x 0.32	5.26E-04	2.18	4.71	1.09E-04	8.98	19.57	12
HF-14	0.00574	28.08	2.5	7.1	3.52	110 x 100 x 0.32	5.88E-04	2.33	4.71	1.81E-04	7.81	15.82	12
HF-15	0.00054	378.80	2.5	8.1	3.83	110 x 100 x 0.32	9.09E-04	0.12	0.28	2.03E-04	0.52	1.14	12
HF-19	0.03400	38.20	2.5	7.2	3.41	110 x 100 x 0.32	7.14E-03	1.26	2.65	1.30E-03	6.71	12.00	12

FIGURE 20

**FIGURE 21**



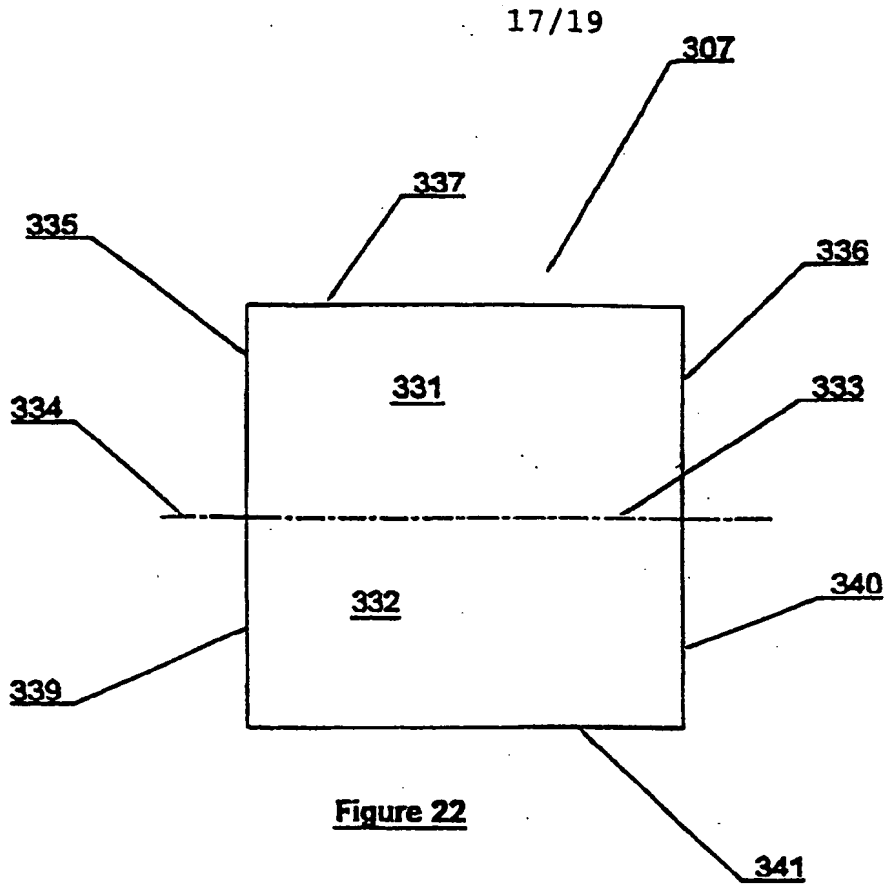


Figure 22

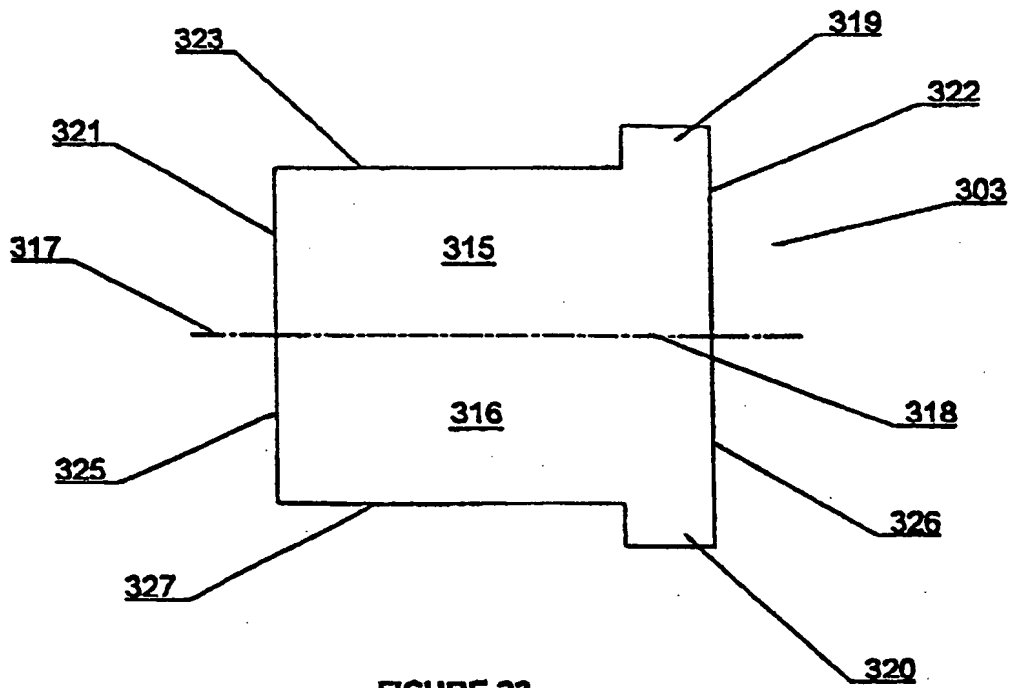
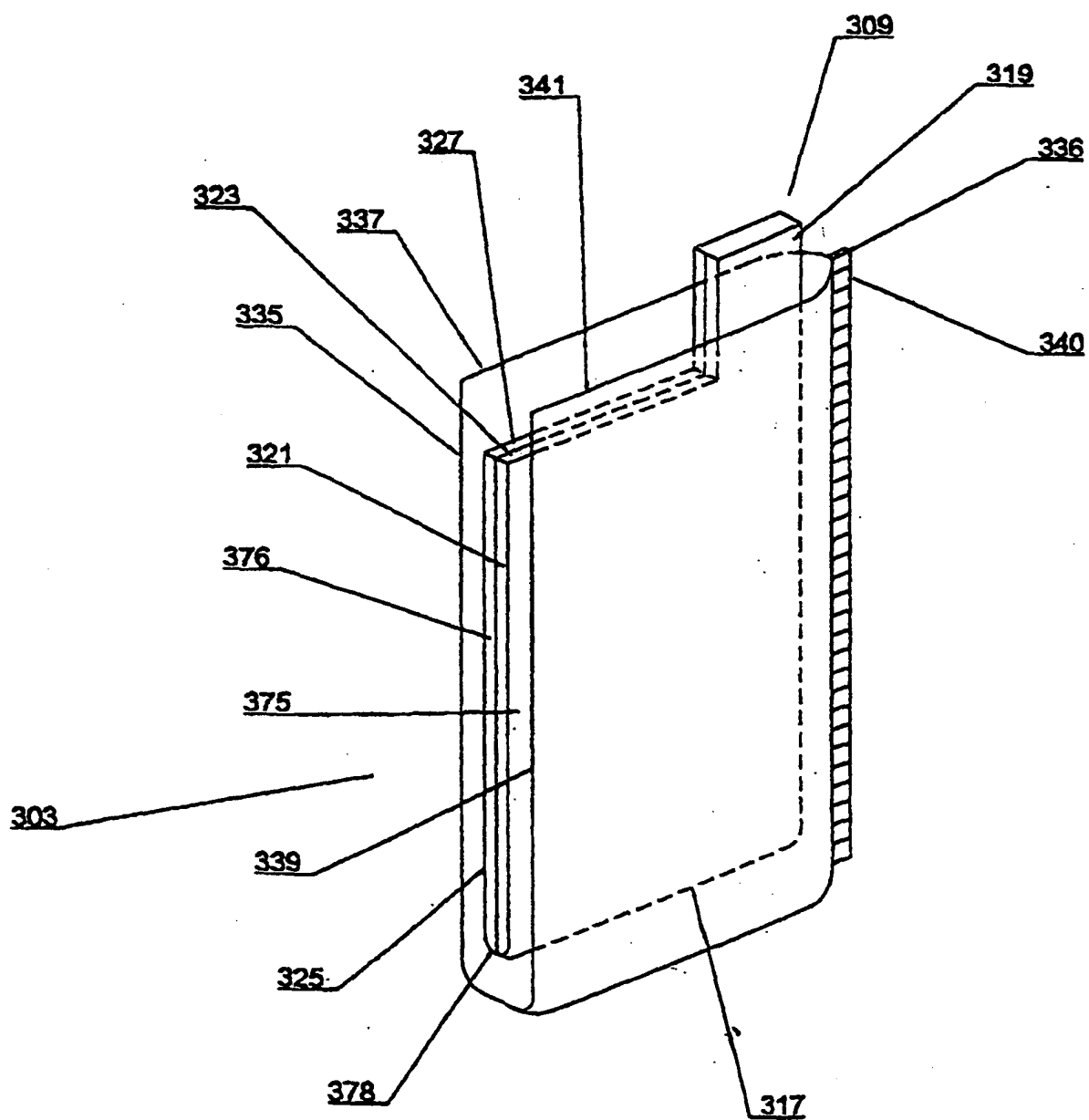
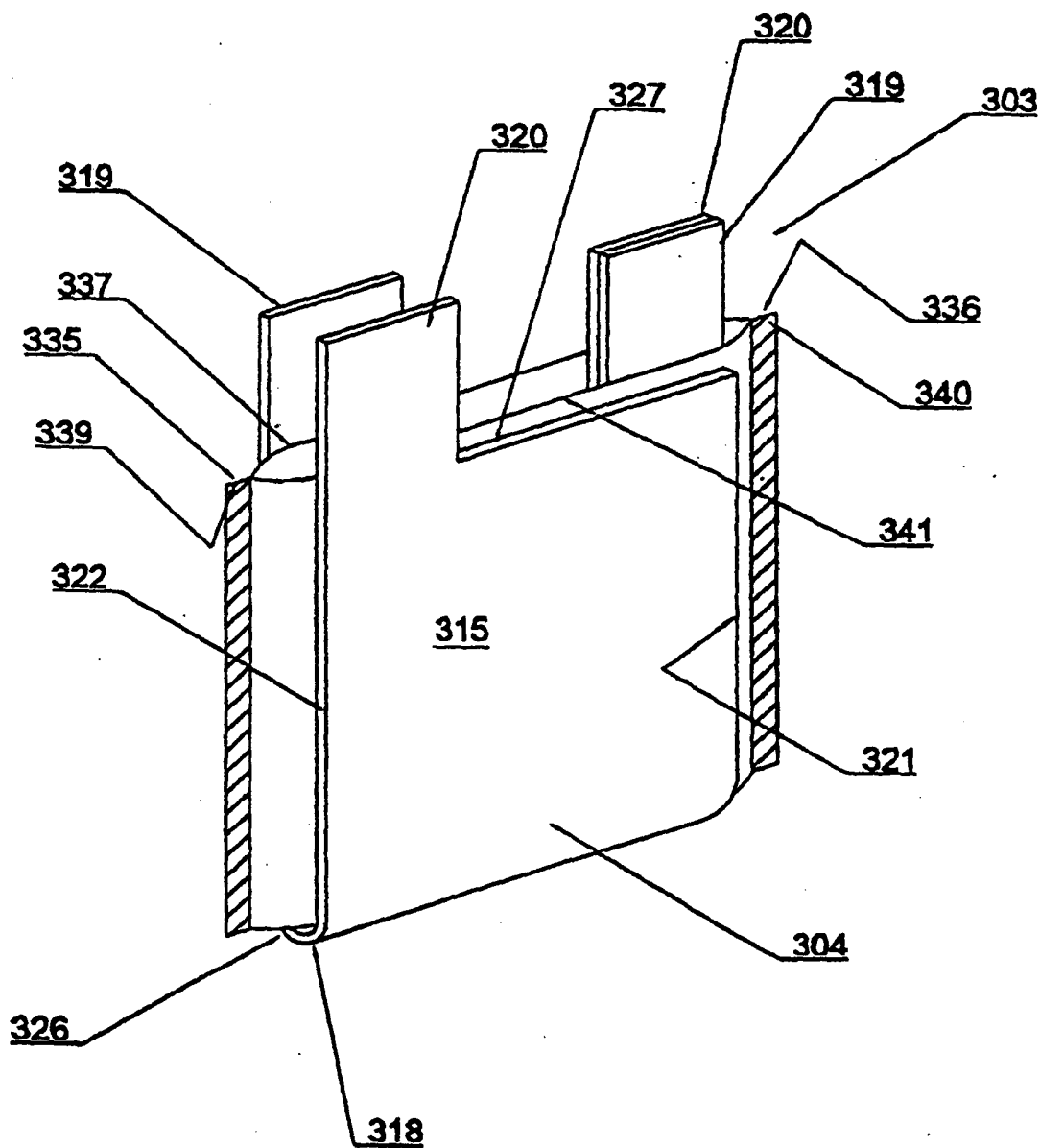


FIGURE 23

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**Figure 24**

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**FIGURE 25**